

**Before the**  
**Federal Communications Commission**  
**Washington D.C. 20554**

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<b>In the Matter of</b>	)	
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<b>National Exchange Carrier Association, Inc.</b>	)	
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<b>Petition to Amend Section 69.104 of the</b>	)	
<b>Commissions' Rules</b>	)	

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**Identity of Commenting Party**

Matanuska Telephone Association, Inc. ("MTA"), is a Rural-ILEC operating in the Matanuska-Susitna Valley of South-Central and Central Alaska, and is a member of NECA's Common-Line and Traffic Sensitive Revenue Pooling Mechanisms. MTA telecommunications services are provided pursuant to CPCN no.19, granted originally by the Alaska Public Utilities Commission, the predecessor agency to the Regulatory Commission of Alaska. MTA's business address is 1740 S. Chugach Street, Palmer, Alaska 99645.

**Statement of the Issue**

*Whether the FCC should grant an interim waiver of 47 CFR 69.104, allowing Channelized T-1 Services to be treated in a manner similar to ISDN-PRI services, for the purpose of charging five (5), or fewer, End-User-Common-Line ("EUCL") charges.*

## Summary of Comments

MTA argues in support of the National Exchange Carrier Association (“NECA”) petition filed with the FCC August 19, 2003; to amend Section 69.104 of the Commission’s Rules (47 CFR 64.104)<sup>1</sup> regarding EUCL charges. The NECA Petition sought an interim waiver of section 69.104 of the Commission’s rules to reduce the number of End User Common Line (“EUCL”)<sup>2</sup> charges carriers must assess on customers ordering channelized T-1 services.

The unintended consequences of the Commission’s rules regarding EUCLs harm rural consumers and telecommunications providers, by posing four real-world barriers that hinder or delay the provisioning of advanced services;

- (1) Customer selection of communications technology is confusing because of EUCLs,
- (2) channelized T-1 service is unaffordable because of EUCLs,
- (3) EUCLs distort the range of cost-effective choices available to customers, preventing customer selection of scalable communications technology that would have allowed an opportunity for them to upgrade their communications services rapidly and enjoy new advanced services,
- (4) EUCL overcharges on Channelized T-1 Services reduce the demand for Channelized T-1 Services, directly creating a disincentive for telecommunications companies to invest in advanced services technologies that their customers demand.

It is apparent to MTA that the unintended consequences of the Commission's rules and policies for EUCLs assessed on Channelized T-1 Services mean that investment in advanced services is hindered or prevented, which also results in an unintended violation of Section 706(a) of the Telecommunications Act.<sup>3</sup>

If the FCC grants the NECA Petition for reduced EUCL charges, it would be a positive result that would allow rural customers to choose from a wider array of advanced telecommunications services at a much more affordable cost.

MTA arguments supporting the NECA Petition are explained below in six sections:

- I. Introduction
- II. Technology Platforms and Provisioning Costs are Similar
- III. EUCL Charges on Channelized T-1s Result in Overcharges
- IV. Current Rules Hinder and Delay Investment in Advanced Services
- V. Remedy: assess five (5) or fewer EUCLs on T-1s.
- VI. Conclusion

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## **I. Introduction**

MTA provides Telecommunications Services to its rural customers over approximately 60,000 access lines. Business and Special Access customers comprise 27% of all MTA customer circuits. The service mix of Channelized T-1's versus ISDN, is 63% Channelized T-1 Services versus 37% ISDN Services.<sup>4</sup>

MTA customers shopping for either digital circuit interfaces via derived channels (1.544 Mbps and greater speeds), compare our NECA Interstate offerings of Channelized T-1

services to ISDN-PRI services. MTA's Business Customer Service Agents today have to answer the customer question, *"why do I have to pay a different amount of surcharges for T-1s when it sounds like it's the same number of channels being used for ISDN?"*

MTA joins NECA in seeking the remedy from the Commission of an interim waiver, to allow five (5) or fewer EUCLs to be assessed against Channelized T-1 Services. MTA offers four arguments that justify this remedy.

First, Communications Technology selection is confusing to our customers when they see artificially high prices for Channelized T-1 Services. Today, MTA customers ordering Interstate Channelized T-1 Services are harmed because of confusion over an apparent disparity between service bandwidth/features and total price of service when EUCLs are included. T-1 services appear to the consumer to be priced higher (because of EUCLs), when compared to ISDN-PRI services. The EUCL costs of T-1s send artificial pricing signals to consumers; the least cost choice is to choose a regressive technology platform (ISDN-PRI), but having to tradeoff and give up the opportunity to enjoy a wide array of hi-speed advanced telecom services (Channelized T-1 Services).

Second, the Channelized T-1 Service is unaffordable. Current rules assess upon ISDN-PRI services only five (5) EUCLs, but impose twenty-four (24) EUCLs on Channelized T-1 services. A customer ordering Channelized T-1 Services suffers an overcharge of nineteen (19) additional EUCLs. Compared to ISDN-PRI, the 19 additional EUCLs is a discriminatory and arbitrary overcharge imposed on Channelized T-1 Services, since the additional EUCL charges do not match, in any cost-causative manner, any variations in the underlying technology platform's investment recovery or service operating costs. The conclusion is that the better technology platform (Channelized T-1s) is an unaffordable service for most Rural Businesses.

Third, the Commission's rules on EUCLs convey to consumers that there is apparently no cost-effective choice available to them that realistically provides a communications technology that 'scales' (upgrades easily in all respects). The scalability criterion is important to our customers, because it gives them some confidence when they attempt to plan a least-cost path to upgrade their existing telecommunications services rapidly in the near future so that they may enjoy advanced services existing today or that will be newly created and available within the year.

Fourth, the Commission's current rules send a signal to telecommunications providers that there is a very clear disincentive to risk the investment necessary to provide scalable communication technology platforms that would allow MTA to provide its rural customers with the advanced communications services that they demand today.

## **II. Technology Platforms and Provisioning Costs are Similar**

If two alternative communication technologies are similar, then the principle of equal treatment mandates that costs and surcharges should apply equally to both services. Similar treatment of costs and surcharges would also accomplish the policy goals of avoiding price discrimination among different classes of customers and preserving technological neutrality in the marketplace for communications services.

MTA's Channelized T-1 Digital Transport Services and ISDN-PRI Services both utilize 24 channels of 64Kbps capacity per channel. Both services display similar provisioning costs in MTA's rural area.

MTA provisions T-1s using HDSL<sup>5</sup> technology. Traditional T-1s are provisioned over 4 copper wires (2-pairs) using HDSL. If a Channelized T-1 is provisioned using HDSL2, then only 2 copper wires (1-pair) are necessary. HDSL technology can carry ISDN as

well as other Channelized T-1 Services. NECA's Petition notes that "some companies report as much as 80% of new T-1 circuits are provisioned using HDSL2 technology."<sup>6</sup>

The scalable technologies important to a Rural-ILEC like MTA include HDSLx technologies (HDSL, HDSL2, and HDSL4)<sup>7</sup> provisioned in Channelized T-1 Services. HDSL technologies used in rural T-1 circuits are an important consideration for the Commission on this matter. HDSLx technologies provide advanced telecom services, and yield economies of scale for Channelized T-1 Services.

The economies of scale in this case mean a more technologically advanced communications service provides higher bandwidth choices while simultaneously yielding a lower average cost to both provider and consumer, when compared to an older/regressive technology communications services. Channelized T-1's operating with HDSLx technology are created at a lower average investment amount and lower average operating cost when compared to ISDN-PRI services.

Backwards compatibility is another virtue of HDSLx technologies, which allow the provisioning of both ISDN-PRI services as well as other Hi-Capacity Channelized services on the same circuits.<sup>8</sup>

### **III. EUCL Charges on Channelized T-1s Result in Overcharges**

Commission Rules currently impose cost disparities on the similar platforms when applying a EUCL charge, which selectively disadvantages MTA customers using Channelized T-1 services.

Channelized T-1 services impose comparatively more costs (19 additional EUCL charges) than if the customer uses ISDN-PRI services. The customer is harmed in the

long-term where the opportunity costs of a cheaper but more technologically advantageous platform becomes “too expensive because of the 24 EUCL’s.” *The artificial pricing signal is driven by a surcharge disparity: it is not driven by a disparity in costs of the underlying service.*

#### **IV. Current Rules Hinder and Delay Investment in Advanced Services**

Customers are harmed when artificially high prices encourage a regressive technology selection. Today customers choose cheaper ISDN over expensive T-1’s. It is our customer’s perception that the telecom industry is sending a false “pricing signal” that seemingly forces a substitution away from Channelized T-1’s (a better technology choice) and instead makes it appear to be more affordable to move toward, or maintain, a comparatively regressive technology platform (ISDN).

Although it may be an unintended outcome by the FCC Policy on EUCLs, the rules nevertheless still create real-world diseconomies of scale in Rural Markets offering Channelized T1 Services. To avoid uneconomic or stranded investments, a telecommunications provider is forced to avoid investments where diseconomies of scale or scope occur in the network.

Customers holding onto their ISDN services instead of upgrading to Channelized T1 Services because of the EUCL disparity, force the telecommunications provider to withhold investment in advanced services platforms.

#### **V. Remedy**

To remedy these problems directly caused by EUCL overcharges, the Commission should consider sending a proper economic and pricing signal that would create more choices for customers of both ISDN and Channelized T-1 services.

MTA submits that the proper Economic Signal for the FCC to send to consumers is to encourage the customer to adopt an affordable option of migrating their existing ISDN-PRI services toward an Advanced Telecommunications technology Platform.

MTA argues that the FCC should decide the issue by assessing only five (5) or fewer EUCLs to any Channelized T-1 circuits operating with HDSLx technology (HDSL, HDSL2, and HDSL4).

HDSLx technologies and the remedy for the EUCL issue are linked, in MTA's opinion, because without an FCC waiver on this matter, MTA would be forced to invest in HDSLx technologies in order to offer the customer the choice (on the same T-1 circuit) of an ISDN-PRI service, to capture the benefit of only five (5) EUCLs.

HDSLx technology is the only "reversible" platform to deal with the EUCL overcharging issue that was created by a policy distortion. With more HDSLx technology investment, a customer today could order ISDN-PRI for a short-term lower total cost, but in the near future quickly upgrade to an advanced services platform (HDSL4) should the day come when Channelized T-1 Services are only charged (5) EUCLs.

HDSL2 technology uses less copper plant (it only requires 1-pair), it scales to benefit both basic and advanced telecommunications services and it means that the customer enjoys more choices of advanced services that are comparatively more cost effective.

Because Channelized T1 Services using HDSL2 Technology only use 2 copper wires, it is plausible that the EUCL established for ISDN (over 4 copper wires) should be five or



fewer EUCLs. The rationale is that NECA data has shown that T1 loop costs compared to POTS loop costs currently have a ratio that ranges from 4.02:1 to 3.76:1.<sup>9</sup> If that data compares T1s provided over 4 copper wires, then there is a different and more efficient use of copper when HDSL2 is applied, and that cost difference should factor into the FCC decision of EUCL charges. MTA argues that for Channelized T1 Services using HDSL2 technology, the EUCL charges that apply should only be five (5) or fewer.

## **VI. Conclusion**

MTA supports the NECA Petition that asks for an interim waiver of section 69.104 of the Commission's Rules, allowing five (5) or fewer EUCL charges to be applied to Channelized T-1 Services: the petition should be granted, in order to encourage telecommunications companies to provide to their customers rapid access to advanced services in a manner that is affordable, and that is also an economically efficient use of the latest available technologies.

Respectfully Submitted, this 25<sup>th</sup> day of September, 2003:

### **Don Reed**

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## End Notes

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<sup>1</sup> **NECA Petition to Amend Section 69.104 of the Commission's Rules**, *Petition for Rulemaking* (September 26th, 2002). Original Petition, NECA also submitted a Joint Petition to the FCC in August, 2003 "RM No. 10603. By the phrase "NECA Petition" MTA means (by reference) to incorporate both the September 26<sup>th</sup>, 2002 and the August 19<sup>th</sup>, 2003 petitions and arguments together, e.g. MTA supports and argues in favor of both petitions.

<sup>2</sup> **EUCL** - End-User Common Line charges are also referred to as "SLCs" Subscriber Line Charges. The August 2003 NECA petition, at footnotes 9 and 10 describes the legal source of the application of EUCLs, and provides the example of a Multiline Business EUCL-ELC of \$9.20 and ISDN line port charge of \$23.51 used as examples, please see NECA Tariff No.5, Sections 17.1.2 and 17.1.4.

<sup>3</sup> **Section 706(a)** of the Telecommunications Act mandates the Commission "encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans by using...regulating methods that remove barriers to infrastructure investment." The Commission's current rules forces carriers to invest in a comparatively regressive technology (ISDN-PRI) only for the sake of saving an end-user the cost burden of additional EUCL charges.

<sup>4</sup> **ISDN** - MTA offers ISDN-BRI and ISDN-PRI services. ISDN-PRI uses 24 channels at 64Kbps per channel. One channel out of 24 is used as a bearer signal channel, allowing the remaining 23 channels to be used for voice or data. The 24 channels comprise a total bandwidth of a T-1 (1.544 Mbps).

<sup>5</sup> **HDSL** – is a "High Bit-Rate Digital Subscriber Line", described in footnote number seven (7) below.

<sup>6</sup> **NECA Petition** – August 2003, RM 10603, footnote number 17.

<sup>7</sup> **HDSL** – High Bit-Rate Digital Subscriber Line: "**HDSL** allows the provisioning of T-1/E1 local loop circuits much more quickly and at much lower cost than through conventional means. In the US, HDSL delivers T-1 (1.536 Mbps usable bandwidth) over a four-wire loop of two pairs. E1 capacity of 2.048 Mbps requires three pairs. Unlike ADSL, HDSL bandwidth is symmetric, as equal bandwidth is provided in each direction. ....Each pair supports simplex (one-way) transmission at 1.544 Mbps, of which 1.536 mbps is usable for data transmission; in combination, the two simplex circuits yield a full-duplex circuit." "**HDSL2**: ....standard proposal will enable service providers to deliver full T-1 (1.544 million bits per second) and potentially E1 (2.04 million bits per second) performance over a single twisted pair cable, with the same reach, robustness and spectral compatibility of today's two-pair HDSL." *Newton's Telecom Dictionary, 16<sup>th</sup> Ed., page 399, (c) 2000 Harry Newton.* **HDSL4** is a proposed industry technology standard, where an HDSL4 circuit would be compatible with ADSL, provisioned over 2 pairs of copper wires. HDSL4 as proposed would be an economically efficient technology platform for Rural Companies offering a "triple-play" of (Voice + Video + Internet) to their customers.

<sup>8</sup> **Example** – If a customer who currently uses ISDN-PRI services over 24 channels (64 Kbps per 1 channel) over 4 copper wires (2 pairs), then migrates instead to Channelized T1 Services using HDSL2 technology, then the same total bandwidth may be provided (1.544 Mbps from the combined 24 channels of 64 Kbps per channel); over only 2 copper wires (1-pair). HDSL2 services, therefore use less copper, and by definition are "*better, faster, cheaper*" to both the telecom provider and the customer.

<sup>9</sup> **NECA Petition**, August 2003, RM 10603, footnotes 15 and 16.